Adaptec ACS-300

Combo eSATA/USB 2.0 Hard Disk Drive Enclosure

User's Guide

adaptec

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Regulatory Compliance Statements

Federal Communications Commission Radio Frequency Interference Statement

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. However, if this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.
- Use a shielded and properly grounded I/O cable and power cable to ensure compliance of this unit to the specified limits of the rules.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

European Union Compliance Statement

This Information Technology Equipment has been tested and found to comply with EMC Directive 89/336/EEC, as amended by 92/31/EEC and 93/68/EEC, in accordance with:

- EN55022 (1998) Emissions
- EN55024 (1998) Immunity:
  - EN61000-4-2 (1998) Electrostatic discharge: ±4 kV contact, ±8 kV air
  - EN61000-4-3 (1998) Radiated immunity
  - EN61000-4-4 (1995) Electrical fast transients/burst: ±1 kV AC, ±0.5 kV I/O
  - EN61000-4-5 (1995) Surges ±1 kV differential mode, ±2 kV common mode
  - EN61000-4-6 (1996) Conducted immunity: 3 V
  - EN61000-4-11 (1994) Supply dips and variation: 30% and 100%

In addition, all equipment requiring U.L. listing has been found to comply with EMC Directive 73/23/EEC as amended by 93/68/EEC in accordance with EN60950 with amendments A1, A2, A3, A4, A11.

Canadian Compliance Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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This *User's Guide* explains how to install and connect your Adaptec® ACS-300 Combo eSATA/USB 2.0 Hard Disk Drive Enclosure, and provides a brief overview of USB and SATA technology.

Kit Contents

- Adaptec ACS-300 Combo USB/eSATA Enclosure
- One enclosure stand
- One power adapter
- One high-quality USB cable
- One high-quality eSATA cable
- One bag of screws
- CD, including device drivers and documentation

A disk drive is not included in this kit. The Adaptec ACS-300 Combo eSATA/USB 2.0 Enclosure supports 3.5-inch SATA I (1.5Gbps) and SATA II (3.0Gbps) hard disk drives.

System Requirements

To successfully install and use your Adaptec ACS-300 enclosure, your computer must meet these requirements:

- CD ROM drive
- For SATA interface:
    - Microsoft® Windows® computers must be running Windows XP, Windows 2000, Windows Me, or Windows 98SE
    - Available eSATA port.
- For USB interface:
    - Microsoft® Windows® computers must be running Windows XP, Windows 2000, Windows Me, or Windows 98SE
    - Apple® Macintosh® computers must be running OS 9.2.2 or later for USB 1.1 support, or OS 10.2.7 or later for USB 2.0 support
    - Available USB 2.0 port.

Getting Started Checklist

- o Preparing the Disk Drive for Installation (see below)
- o Installing a Disk Drive (see below)
- o Installing the Device Driver–Windows *98SE Only* (see page **5**)
- o Connecting and Powering On (see page **6**)
- o Preparing the Disk Drive for Use (see page **7**)

Preparing the Disk Drive for Installation

The Adaptec ACS-300 enclosure supports 3.5-inch SATA I and SATA II hard disk drives. Most of the SATA drives don't have the jumper to set the Master, Slave, or Cable Select like the ATA/IDE drive; however, if your hard disk does equip with such jumper, please set it to Master or Device 0 mode (or equivalent) following the instructions on your disk drive.

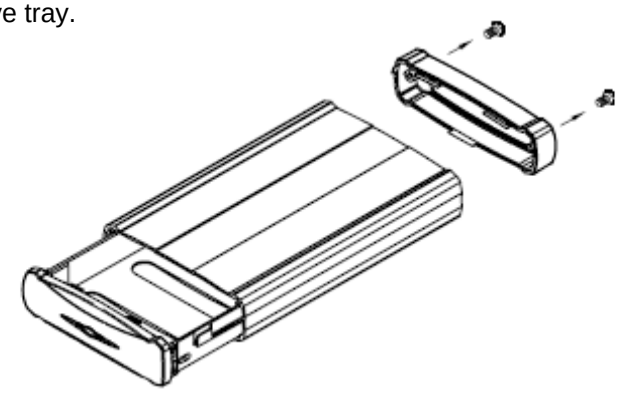
Installing a Disk Drive

Note: You need a Phillips screwdriver to complete this task.

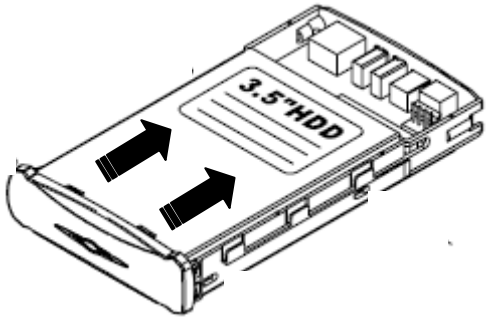
To install a disk drive into your enclosure:

1 Use a screwdriver to remove the two screws on the back of the enclosure.

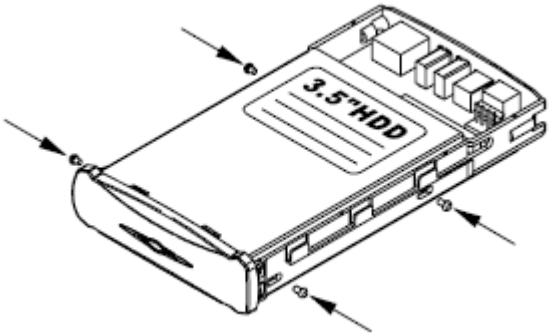
2 Remove the enclosure's back panel, as shown below, and slide out the disk drive tray.



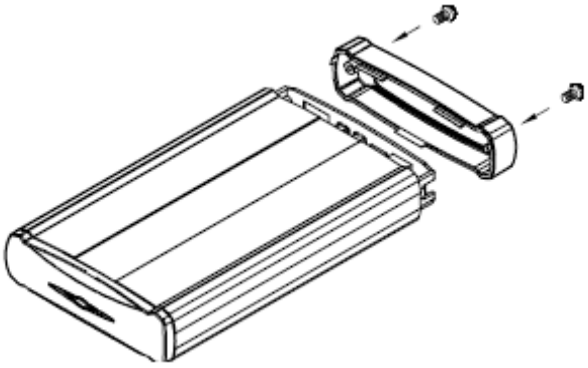
3 Place the disk drive into the tray and gently slide it forward into the SATA connector.



4 Use the four screws included in the kit to secure the drive.



5 Slide the disk drive tray into the enclosure and replace the back panel, then secure it with the screws you removed in Step 1 on page 3.



Installing the Device Driver–*Windows 98SE Only*

Note: *Windows XP/2000/Me and Macintosh users*—No driver installation is required. Your Adaptec ACS-300 enclosure works with the drivers built into your operating system.

This section describes how to install the USB 2.0 driver. The SATA interface will use the build-in mass storage driver from the system.

Before you begin, ensure you have the most recent driver updates installed on your computer. Refer to the Microsoft Web site at www.microsoft.com to download updates.

You may need your Windows 98SE CD during this installation.
To install the device drivers:

1. Power on your computer, if you have not already done so.
2. Insert the Adaptec ACS-300 CD into your CD drive.
3. From the Windows **Start** menu, click **Run**, and then click **Browse**.
4. Browse to the CD drive, then double-click **Setup.exe** to begin the driver installation.
5. Follow the on-screen instructions to install the USB 2.0 driver.

Connecting and Powering On

Note: *Windows 98SE users only*—You must install the device drivers *before* connecting and powering on the enclosure.

To connect the cables and power on:

1. Connect your enclosure to your computer using *either* the included USB *or* eSATA cable:
   - Connect the USB cable from the USB 2.0 port on the enclosure to a USB 2.0 port on your computer, *or*
   - Connect the eSATA cable from the eSATA port on the enclosure to an eSATA port on your computer.

Note: *Do not* connect both the USB 2.0 and eSATA cables.

2 Use the included power adapter to connect the enclosure to a grounded power supply.

3 Power on the enclosure by pushing the on/off switch on the back of the enclosure to the **I** position.

The LED on the front of the enclosure illuminates.

Note: The LED flashes when there's activity on the disk drive.

You have successfully installed and connected your Adaptec ACS-300 enclosure.

Preparing the Disk Drive for Use

If you have installed a *new* disk drive in your enclosure, you must prepare it for use by initializing and formatting it, so that your computer can recognize and communicate with it.

Caution: If you've used the disk drive previously and want to preserve the data on it, *do not* initialize and format the disk drive or you'll erase all the data on it. Refer to your operating system documentation for more information.

The process of initializing and formatting a new disk drive differs by operating system. Refer to your operating system documentation for instructions on completing these tasks.

Note: For technical assistance with the initialization and formatting process, please contact Microsoft (Windows users) or Apple (Macintosh users).

Setting up Removable option – *Windows 98SE Only*

For some models of SATA hard disk, you may need to enable the "removable" option in order for the system to detect the drive. If you don't see your drive show up in "My Computer", please follow the steps below:

1. On your desktop, right-click **My Computer**, select **Properties**, then click the **Device Manager** tab.
2. Expand the **Disk Drive** category. Select the hard drive installed in the enclosure, and then right-click to select the **Properties**.
3. Click on the **Setting** tab and select **Removable** in the **Option** box.
4. Continue to the **Reserved Drive Letters** box and select the same letter for the **Start** & **End Driver letter.**
5. Restart the system when prompted.

Connecting and Disconnecting Your Enclosure

Your Adaptec ACS-300 enclosure has one USB 2.0 and one eSATA port. It supports hot-plugging which means you can connect and disconnect your enclosure from the computer while running. However, Adaptec recommends that you follow these instructions to gracefully disconnect your enclosure from your computer.

Windows

To disconnect the enclosure:

1 Ensure that all activity is stopped (no files are being transferred to or from the computer).

2 Click the icon[1] shown at right, located on your system tray in the bottom right corner of your screen.

Note: Windows 98SE has a different but very similar icon as shown at right. The steps to disconnect the device are alike.

3 Highlight the drive (indicated by the driver letter) that you want to disconnect then click on it.

4 A message appears telling you that the device has been stopped. Click **OK**.

5 Power off the enclosure.

It is now safe to disconnect your enclosure.

Macintosh

Ensure that all activity is stopped (no files are being transferred to or from the computer). To disconnect the enclosure, click on the icon for the disk drive and drag it into the trash can. Then, power off the enclosure.

It is now safe to disconnect your enclosure.

[1] Depending on your operating system, the wizard may be called the Safely Remove Hardware wizard or the Unplug or Eject Hardware wizard.

Troubleshooting

If you have problems installing or using your Adaptec ACS-300 enclosure, work through this list of suggestions:

- Ensure that the disk drive has been properly installed.
- Try connecting the enclosure to your computer through a different USB port.
- Try connecting the enclosure to your computer through a different eSATA port.
- Try using a different USB or eSATA cable.
- Try connecting the enclosure to a different power source.
- If you are using Windows with a file system *other than* NTFS, and the file system of the disk drive installed in the Adaptec ACS-300 is NTSF, Windows may not recognize or be able to read from the disk drive.

  See the Table below for compatibility information:

Operating System File System	ACS-300 Disk Drive File System	Compatibility
FAT16	FAT16	OK
	FAT32 or NTFS	No
FAT32	FAT16 or FAT32	OK
	NTFS	No
NTFS	FAT16 or FAT32 or NTFS	OK

  For technical assistance initiating and formatting your disk drive, please contact Microsoft (Windows users) or Apple Computer (Macintosh users).

- ***For Windows 98SE users —***

  - If you connected and powered on your enclosure *before* you installed the device drivers, your enclosure may not work properly. Follow the steps below to fix it.

    a. On your desktop, right-click **My Computer**, select **Properties**, then click the **Device Manager** tab.

    b. Expand the categories to find your enclosure, which will appear with a yellow exclamation mark beside it. Select the enclosure, then click the **Remove** button at the bottom of the window.

    c. Power off the enclosure and disconnect the USB or eSATA cable.

    d. Complete the driver installation, following the instructions on page **5**.

    e. Reconnect the USB or eSATA cable and power on the enclosure, following the instructions on page **6**.

  - If you are using the SATA interface and you connected and powered on your computer *before* you turn on the enclosure, your system may not detect the enclosure with some SATA add-on card. To workaround the issue, make sure the enclosure is powered on when starting up the computer.

- If you don't see the hard drive under "My Computer", follow the instructions on page **7** to enable the "Removable" option that may fix the issue**.**

About USB Technology

USB stands for Universal Serial Bus. It is the interface between your computer and the USB devices you plug into it. Your computer communicates with USB devices through the USB interface.

USB devices can be plugged into USB ports only, and must be supported by USB drivers.

USB 1.1 devices operate at a maximum speed of 12 Mbps (Megabits per second); USB 2.0 devices operate at a maximum speed of 480 Mbps.

About USB 2.0 Performance

Your Adaptec ACS-300 enclosure provides a USB 2.0 port. For it to operate at USB 2.0 speeds, it must be connected to a USB 2.0 port, and USB 2.0 drivers must be installed on your computer.

If your computer does not have a built-in USB 2.0 port, Adaptec recommends connecting the enclosure to an Adaptec USB 2.0 adapter for the highest-quality USB 2.0 connection.

About SATA Technology

Serial ATA is the next-generation internal storage interconnect designed to replace Ultra ATA technology. Serial ATA is the proactive evolution of the ATA interface from a parallel bus to serial bus architecture. This architecture overcomes the electrical constraints that are increasing the difficulty of continued speed enhancements for the classic parallel ATA bus. Serial ATA was introduced at 150Mbytes/sec, with a roadmap already planned to 600Mbytes/sec, supporting up to 10 years of storage evolution based on historical trends. Though Serial ATA will not be able to directly interface with legacy Ultra ATA hardware, it is fully compliant with the ATA protocol and thus is software compatible.

About SATA II (3Gbps) Performance

Your Adaptec ACS-300 enclosure provides an industrial standard eSATA connector for external connection. It works with SATA I (1.5Gbps) or SATA II (3Gbps) hard disk drive. To operate in highest possible speed, you need a SATA II hard disk drive and an SATA II (3Gbps) add-on card that provides at least one eSATA external SATA port.

If your computer does not have an eSATA port or SATA II 3Gbps speed, Adaptec recommends connecting the enclosure to an Adaptec's SATA adapters.

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